

What is claimed is:

1. (original) heat sink with a main body for accommodating at least one electronic structural element, and with a spring element for pressing the structural element against the main body, whereby the spring element is held on the main body by a connecting means, wherein, the connecting means are configured as a push-on connection (15) and have a projection (7) on the main body (2) and a mounting opening (14) in the spring element (3) for the projection (7), whereby the opening edge (23) of the mounting opening (14) bears, at least in sections, against the lateral surface of the projection (7) under preload resulting from the intrinsic elasticity of the spring element (3) and/or the projection (7).
2. (original) The heat sink as recited in Claim 1, wherein the spring element (3) is designed as a leaf spring.
3. (currently amended) The heat sink as recited in ~~one of the preceding~~ claims claim 1, wherein the spring element (3) has at least one contact point (13) for the structural element (5).
4. (currently amended) The heat sink as recited in ~~one of the preceding~~ claims claim 1, wherein the spring element (3), in the state in which it is acting on the structural element (5), has an elastic deflection located between the mounting opening (14) and the contact point (13) for applying the preload.
5. (currently amended) The heat sink as recited in ~~one of the preceding~~ claims claim 1, wherein the diameter (16) of the mounting opening (14) is greater than the associated diameter (17) of the projection (7).

6. (currently amended) The heat sink as recited in ~~one of the preceding~~  
~~claims~~ claim 1,

wherein, before the spring element (3) is installed, the diameter (16) of the mounting opening (14)—at at least one point on the circumference of the mounting opening—is smaller than or equal in size to the diameter (17) of the projection (7) at a point of the projection circumference associated with said point.

7. (currently amended) The heat sink as recited in ~~one of the preceding~~  
~~claims~~ claim 1,

wherein the edge region (28) of the mounting opening (14) is provided with indentations (32) for forming spring tabs (31).

8. (currently amended) The heat sink as recited in ~~one of the preceding~~  
~~claims~~ claim 1,

wherein the contact zone on the projection (7) is a plastic material deformation zone.

9. (currently amended) The heat sink as recited in ~~one of the preceding~~  
~~claims~~ claim 1,

wherein the projection (7) and the main body (2) are an extruded part.

10. (currently amended) The heat sink as recited in ~~one of the preceding~~  
~~claims~~ claim 1,

wherein the projection (7) is designed as a circular cylindrical peg (33), and the mounting opening (14) has a circular cross section.